



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,935	02/04/2002	Fouad D. Mehawej	DA-047-US-01	4239

7590

08/02/2005

Julie Post
H.B. Fuller Company
1200 Willow Lake Blvd.
P.O. Box 64683
St. Paul, MN 55164-0683

EXAMINER

STEPHENS, JACQUELINE F

ART UNIT	PAPER NUMBER
----------	--------------

3761

DATE MAILED: 08/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/066,935

Applicant(s)

MEHAWAJ, FOUAD D.

Examiner

Jacqueline F. Stephens

Art Unit

3761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) 41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40, 42, 43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. The examiner erroneously identified claims 1-38 as Group I and Claim 39 and Group II in the restriction requirement mailed 8/11/04. The claims should have been correctly identified as Group I – claims 1-40 and Group II, claim 41. Applicant elected, without traverse, Group I, which included claims 1-40 in the reply filed on 2/17/05.

Response to Amendment

2. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn, as claim 39 was not addressed in the Office Action mailed 5/18/05.

Response to Arguments

3. Applicant's arguments filed 2/17/05 and 7/18/05 have been fully considered but they are not persuasive. Applicant repeats the argument that Chmielewski does not disclose a core that includes a nonwoven web that includes a superabsorbent polymer or a high loft nonwoven. As stated in the Office Action mailed 5/18/05, Applicant is directed to col. 8, lines 36-67; col. 10, lines 36-60; col. 11, line through col. 12, line 58 where Chmielewski teaches a core of SAP and fibrous additives, such as polyester and bicomponent fibers, which are known in the art as resilient fibers that add bulk and loft. Additionally, the present invention on page 8, lines 1-7 describes the high loft web as

Art Unit: 3761

containing the same materials as those taught in Chmielewski, col. 11, line 47 through col. 12, line 9. Applicant repeats the argument that Chmielewski does not disclose a web where the superabsorbent is formed *in situ*, and argues this creates a structural difference in that the superabsorbent formed *in situ* is present throughout the web. Chmielewski teaches compositions of up to 80% SAP. At this high concentration of SAP, it is inevitable that the SAP is present throughout the web. Additionally, in the features upon which applicant relies (i.e., coating along the length of the fibers of the nonwoven web) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argues the limitation directed to the formation of the superabsorbent in the web imparts a structural difference to the web whereas the superabsorbent polymer precursor composition is in contact, and in interstices between the fibers. However, it is noted that the features upon which applicant relies (i.e., superabsorbent polymer precursor composition is in contact, and in interstices between the fibers) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Additionally, the composite of Chmielewski (element 340) shows superabsorbent polymers in contact, and in interstices between the fibers (Figure 8).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 42 and 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 42 and 43 recite the limitation "the fibers of said nonwoven web" in line 1. There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-10, 18-20, 26-30, 32-34, 36, 37, 40, 42, and 43, as best understood by the examiner, are rejected under 35 U.S.C. 102(b) as being anticipated by Chmielewski USPN 6068620.

As to claims 1-5, 36, 37, and 40 Chmielewski discloses an absorbent article, such as a disposable diaper, feminine hygiene product, or adult incontinence product (col. 4, lines 55-63) having a core 34 that comprises a composite 340 comprising:

superabsorbent polymer; and a high loft nonwoven web impregnated with the superabsorbent polymer, the composite comprising from 10% by weight to about 90% by weight superabsorbent polymer (col. 8, lines 36-67; col. 11, line 9-28 through col. 12, line 9; col. 14, lines 27-34). The limitation of the superabsorbent polymer having been formed in situ is directed to a process of making the article. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted). MPEP 2113.

Chmielewski teaches compositions of up to 80% SAP. At this high concentration of SAP, it is inevitable that the SAP is present throughout the web. Additionally, page 8, lines 1-7 of the specification sets forth materials capable of being a high loft nonwoven. Chmielewski teaches similar materials for the absorbent composite (col. 11, line 9 through col. 12, line 9). Thus, Chmielewski includes a high loft nonwoven. "When the structure recited in the reference is substantially identical to that of the claims of the instant invention, claimed properties or functions are presumed to be inherent (MPEP 2112-2112.01)". "A *prima facie* case of either anticipation or obviousness has been

Art Unit: 3761

established when the reference discloses all the limitations of a claim except a property or function and the examiner can not determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention but has basis for shifting the burden of proof as in *In re Fitzgerald*, 619 F.2d 67, 70 205 USPQ 594, 596 (CCPA 1980)".

As to claims 6-10, Chmielewski discloses a basis weight of the nonwoven web 340 in a range from 50-300 gsm, which includes the claimed ranges (col. 12, lines 43-50).

As to claims 18-20, see Chmielewski col. 17, lines 30-40.

As to claim 26, Chmielewski discloses the diaper further comprises a topsheet 30, an acquisition layer 344, a cellulose fiber layer 340b, 340c, and an impermeable layer 32.

As to claim 27, Chmielewski discloses the core further comprises cellulose fibers (layer 340c Figure 3 and col. 11, lines 42-44) the diaper further comprising an acquisition layer 344, and the cellulose fiber are disposed between the acquisition layer 344 and the composite 340 (Figure 3).

As to claim 28, Chmielewski discloses the disposable diaper further comprises an acquisition layer 344 and an impermeable layer 32. The core 34 is disposed between the acquisition layer 344 and the impermeable layer 32 (Figure 3).

As to claim 29, Chmielewski discloses the disposable diaper further comprises a second nonwoven web 30 (col. 5, lines 61-66) and an acquisition layer 344. The acquisition layer 344 is disposed between the core 34 and the second nonwoven web 30 (Figure 3).

As to claims 30 and 32, see Chmielewski col. 1, lines 27-44.

As to claim 33, Chmielewski discloses the superabsorbent polymer is enclosed within a matrix of the high loft web 340a. The web 340a is at least partially enveloped in webs 340c and 340b. Because the web 340a is encased in the tissue layers 340c and 340b, it is reasonable to conclude the SAP would remain in the web when contacted with water and Chmielewski teaches leakage of the SAP is obstructed by the wrapping layers (col. 8, line 65 through col. 9, line 11).

As to claim 34, Chmielewski discloses the core further comprises cellulose fibers 342, the composite 340 is disposed in regions on the cellulose fibers (Figures 2 and 3).

As to claims 42 and 43, see Chmielewski col. 11, lines 54-62.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 11-17, 21-25, 31, 38, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chmielewski USPN 6068620.

As to claims 11-14, 38, and 39, Chmielewski discloses a an absorbent article, such as a disposable diaper, feminine hygiene product, or adult incontinence product (col. 4, lines 55-63) having a core 34 that comprises a composite 340 comprising:

superabsorbent polymer; and a high loft nonwoven web impregnated with the superabsorbent polymer, the composite comprising from 10% by weight to about 90% by weight superabsorbent polymer (col. 8, lines 12-14; col. 11, lines 9-28, 47-67; col. 14, lines 27-34). Chmielewski teaches compositions of up to 80% SAP. At this high concentration of SAP, it is inevitable that the SAP is present throughout the web. The limitation of the superabsorbent polymer having been formed in situ is directed to a process of making the article. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a

different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted). MPEP 2113.

Chmielewski discloses the present invention substantially as claimed. However, Chmielewski does not disclose a density in the claimed range. Although Chmielewski does not give the claimed density value, the applicant fails to disclose that a density less than 0.01 g/cm^3 is such a critical value or gives unexpected results so to exclude a higher density. In the absence of any new or unexpected results, discovering the optimum or workable ranges involves only routine skill in the art.

As to claims 15-17, Chmielewski teaches the present invention substantially as claimed except Chmielewski does not teach the composite exhibits a saline absorption capacity under a load of 0.3 psi of at least 10-20 g 0.9% saline/g composite. However, Chmielewski an absorbency under a load of 0.5 psi of at least 20 g/g SAP in the composite. The composite has the same properties (liquid absorbency) and is used in the same environment as applicant's outer cover (absorbent articles). Therefore, the general conditions of the claimed invention are present in the prior art. Even though Chmielewski does not disclose the specific test and test results, applicant has not disclosed the claimed absorbency value is critical or more effective at liquid uptake and storage than any other level of absorbency, that may be measured by a different absorbency test. The claims are structural claims and the composite of Chmielewski apart from how it is tested, results in a liquid absorbent structure. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was

Art Unit: 3761

made to provide the composite with the claimed absorbency value of the present invention, since where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation, *In re Aller et al.* 105 USPQ 233.

As to claims 21-25, regarding the tensile strength and the examiner's interpretation of the test and performance characteristics of the instant apparatus claims, when the structure recited in the reference is substantially identical to that of the claims of the instant invention, claimed properties or functions are presumed to be inherent (MPEP 2112-2112.01). A *prima facie* case of either anticipation or obviousness has been established when the reference discloses all the limitations of a claim except a property or function and the examiner can not determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention but has basis for shifting the burden of proof as in *In re Fitzgerald*, 619 F.2d 67, 70 205 USPQ 594, 596 (CCPA 1980). In the present case, the reference has met the structural requirements of claim 1. Additionally, Chmielewski discloses bonding the fibers within the web to provide for a high wet strength (col. 13, lines 14-19). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the composite with the claimed tensile strength values of the present invention, since where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation, *In re Aller et al.* 105 USPQ 233.

As to claim 31, Chmielewski does not specifically disclose the claimed carboxylic acid monomer. However, it is old and well known in the art, and therefore obvious, to use the claimed carboxylic acids in superabsorbent polymers. For example, Abuto et al. USPN 5788684 discloses maleic anhydride polymers for use as hydrogel polymers (col. 4, line 67 through col. 5, line 11).


10. Claim 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chmielewski in view of Abuto et al. USPN 5788684. Chmielewski discloses the present invention substantially as claimed. However, Chmielewski does not disclose the core comprises a plurality of strips of the composite. Abuto discloses a liquid-absorbing article having discrete areas of superabsorbent for the benefit of allowing room for the superabsorbent to expand and thus, more effectively utilizing the superabsorbent (Abstract and col. 2, lines 9-17). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the invention of Chmielewski to form the core in a plurality of strips for the benefits disclosed in Abuto.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacqueline F Stephens whose telephone number is (571) 272-4937. The examiner can normally be reached on Monday-Friday 9:00-5:30.

Art Unit: 3761

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Schwartz can be reached on (571) 272-4390. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jacqueline F Stephens
Examiner
Art Unit 3761

July 28, 2005